SISTEM
Print Solution

Golden Laser

LASER DIE CUTTING SYSTEMS

Roll to roll · Roll to sheet · Labels

# LC-350 / LC-520

## Roll to Roll Label Laser Die Cutting Machine

Digital laser cutting and finishing of roll materials — no dies, no tooling, no waiting.




The LC series is an innovative digital solution for converting roll materials. Its modular design handles roll-to-roll, roll-to-sheet and roll-to-sticker processes seamlessly, delivering high-quality, on-demand production that dramatically shortens lead times and eliminates the cost of conventional die cutting through a complete, efficient digital workflow.

| | | | |
|---|---|---|---|
| **120 m/min** | **±0.1 mm** | **150–600 W** | **350 mm** |
| Max web speed (depends on laser power, material and pattern) | Cutting accuracy and cut-to-print registration | $CO_2$ RF laser power; picosecond and UV laser options | Standard web width; 450 mm up to 1000 mm on request |

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**SISTEM Print Solution doo**

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DIGITAL LASER DIE CUTTING SYSTEM

## From file to finished label in one pass — without a single die.

Pattern changeover is as simple as opening a file: no tooling cost, no die storage and no setup downtime. It is the ideal solution for just-in-time manufacturing and short runs.

With a Barcode or QR Code reader the system cuts continuously and changes jobs on the fly. Different laser power levels can be used on the same label, and wider webs, extra laser heads and converting modules are available to suit each customer's process.

### STANDARD VERSION

- Unwinding with closed-loop tension control
- Laser cutting station
- Waste matrix removal
- Dual rewinding
- Ready for add-on modules: varnishing, lamination, slitting, sheeting and more

KEY FEATURES

**01**
### Quick turnover
Eliminates die fabrication, maintenance and storage — ideal for short runs and just-in-time orders.

**02**
### Precision cutting
Complex geometry and superior part quality that conventional die cutting cannot replicate.

**03**
### Multiple processes in one run
Full cutting, kiss-cutting, perforating, micro-perforating, engraving, marking and creasing.

**04**
### Vision system — cut to print
HD camera or sensors register printed marks and pre-cut shapes for 0.1 mm cut-to-print registration.

**05**
### Barcode job change
MARK point positioning plus Barcode/QR reading switches jobs automatically, without stopping.

**06**
### Multiple laser heads
One or two scan heads as standard, three or more on request, for speeds up to 120 m/min.

**07**
### Unlimited cutting path
The beam moves in any direction — rounded or square corners, jagged edges and ultra-long continuous graphics.

**08**
### Intelligent software
In-house algorithms constantly adapt laser speed to each graphic to improve accuracy.

**09**
### PC workstation
Manage all laser station parameters and optimise layout for maximum material yield.

**10**
### Modular design
Standardised modules combine to match the process and automate any converting requirement.

**11**
### Complete digital workflow
No downtime between jobs — ready for on-demand and variable production.

**12**
### Single operator
High integration and simple operation let one person run the line, reducing labour costs.



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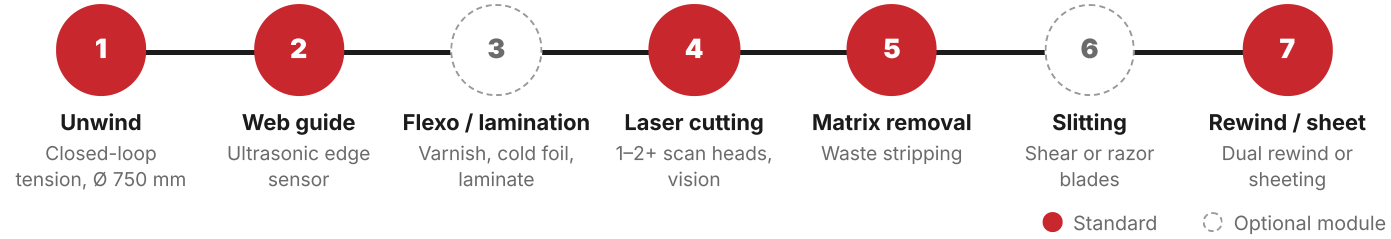
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# LC-350 / LC-520

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## PROCESS LINE




| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|
| **Unwind** | **Web guide** | **Flexo / lamination** | **Laser cutting** | **Matrix removal** | **Slitting** | **Rewind / sheet** |
| Closed-loop tension, Ø 750 mm | Ultrasonic edge sensor | Varnish, cold foil, laminate | 1–2+ scan heads, vision | Waste stripping | Shear or razor blades | Dual rewind or sheeting |

● Standard ◌ Optional module

## TECHNICAL SPECIFICATIONS

| | |
|---|---|
| Models | **LC-350 · LC-520** |
| Laser source | **$CO_2$ RF laser**<br>Picosecond and UV laser available as options |
| Laser power | **150 W / 200 W / 300 W / 600 W** |
| Max web width | **350 mm (LC-350) · 520 mm (LC-520)**<br>Customised widths of 450 mm up to 1000 mm on request |
| Max feeding width | **370 mm (LC-350)** |
| Max web diameter | **750 mm (unwind and rewind)** |
| Max web speed | **120 m/min**<br>Depending on laser power, material and cut pattern |
| Cutting accuracy | **±0.1 mm** |
| Positioning | **MARK points, Barcode / QR Code, HD vision camera** |
| Processing | **Roll to roll · roll to sheet · roll to sticker / part** |
| Power supply | **380 V, 50/60 Hz, three-phase** |
| Dimensions (L×W×H) | **LC-350: 5.6 × 1.52 × 1.78 m**<br>**LC-520: 7.6 × 2.1 × 1.88 m** |

## CONFIGURATION

**Unwinder**
Closed-loop tension control, max unwind diameter 750 mm

**Laser cutting**
One or two scan heads; three or more on request. Multi-station galvo + XY gantry available

**Slitter**
Optional shear slitter or razor-blade slitter

**Web guiding system**
Electronic web guide with ultrasonic edge-guide sensor

**Lamination**
Two pneumatic shafts with unwind / rewind

**Rewinder + matrix removal**
Single or dual rewinder, closed-loop tension, max 750 mm



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## CONVERTING OPTIONS

- Cutting roll to roll, roll to sheet and roll to stickers
- Semi-rotary and flatbed die-cutting
- Lamination — self-wound or with liner
- Sheeting
- Waste collector or conveyor for through-cut parts
- Missing-label inspection and detection
- Bar code reading — on-the-fly job change
- Flexo varnishing and cold foil
- Slitting — blade or razor slitting
- Waste matrix rewinder with label shifter and back-scorers
- Corona treatment unit
- Registration mark sensor and encoder

## APPLICABLE MATERIALS

Paper · Coated paper · Glossy / matte paper · Synthetic paper · Kraft paper · PET / PET film · PP · BOPP · PE · TPU · Plastic films · Double-sided tape · 3M VHB tape · Reflective material · Micro-finishing / lapping film · Fabrics

## APPLICATION FIELDS

Labels · Stickers & decals · Printing & packaging · Films & tapes · Heat transfer films · Retro-reflective films · Industrial & 3M tapes · Abrasives · Automotive · Gaskets · Membrane switches · Electronics

## APPLICATIONS




Self-adhesive labels on rolls, shaped stickers, packaging labels and kiss-cut parts.

**Find the right configuration for your production.**

Our specialists will help you choose the modules, laser power and web width for your application.

Request a quote

Due to continuous product improvement, appearance, specifications and dimensions may change without notice. Application photos are illustrative.



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